CLEAN VERSION OF CLAIMS AS AMENDED

- 5. A method of increasing the infectivity of a cell to a viral vector by treatment of the cell with a micro-calpain inhibitor.
- 7. (Amended) The method of claim 6 wherein the <u>micro-calpain</u> inhibitor is calpain inhibitor 1.
- 21. The method of claim 6 wherein said adenoviral vector is replication deficient.
- 22. The method of claim 21 wherein said replication deficient adenoviral vector encodes a therapeutic transgene.
- 23. The method of claim 22 where said transgene is selected from the group consisting of cytostatic genes and pro-apoptotic genes.
- 24. The method of claim 23 wherein the gene is a cytostatic gene.
- 25. The method of claim 24 wherein the gene is the p21 gene.
- 26. The method of claim 23 wherein the gene is a pro-apoptotic gene.
- 27. The method of claim 26 wherein the gene is p53.
- 28. The method of claim 5 wherein the vector is replication competent.
- 29. The method of claim 28 wherein the replication competent vector is a conditionally replicating viral vector.
- 30. The method of claim 29 wherein the conditionally replicating viral vector further comprises an expression cassette which expresses a pro-apoptotic gene.
- 31. The method of claim 30 wherein the pro-apoptotic gene is the E3-11.6K gene.
- 32. The method of claim 5 wherein the method is practiced in vitro.
- 33. The method of claim 32 wherein the viral vector is a replication deficient adenoviral vector and the cell is a producer cell capable of complementing the deleted functions of the replication deficient adenoviral vector.
- 34. The method of claim 33 wherein the replication deficient adenoviral vector lacks a functional E1 region and the producer cell is a 293 cell.
- 35. The method of claim 32 wherein said *in vitro* practice of the method is in a process to purge tumor cells from a stem cell product by exposing said stem cell product to a calpain inhibitor prior to the administration of a viral vector.
- 36. The method of claim 35 wherein said viral vector is an adenoviral vector that encodes and expresses the p53 tumor suppressor gene.